

Online Appendix for

Ethnic Inequality, Democratic Transitions, and Democratic Breakdowns: Investigating an Asymmetrical Relationship

Descriptive statistics	2
Country graphs (cross-sectional map)	3
Country graphs (time-series).....	4
Supplementary mechanism assessments.....	8
Group-level AMAR data.....	8
Country-level BTI data	11
Formal mediation analysis	13
Implication test: ethnic diversity and democratic breakdowns	15
Country examples: democratic breakdowns	17
Robustness tests	19
Controls for inequality at time of transition	19
Controls for inequality in public services by socio-economic status.....	20
Functional form.....	21
Transition type	23
Breakdown type.....	24
Alternative democracy measures.....	25
Alternative ethnic inequality measure for breakdown analysis.....	26
Restricted sample: excluding one region at the time	28
Temporally restricted sample	29
Longer lags.....	30
Longer panels	30
Controls for regime age	31
Probit estimates	32
Exploring the potential role of group size.....	33
Test for influential observations	37
References	45

Descriptive statistics

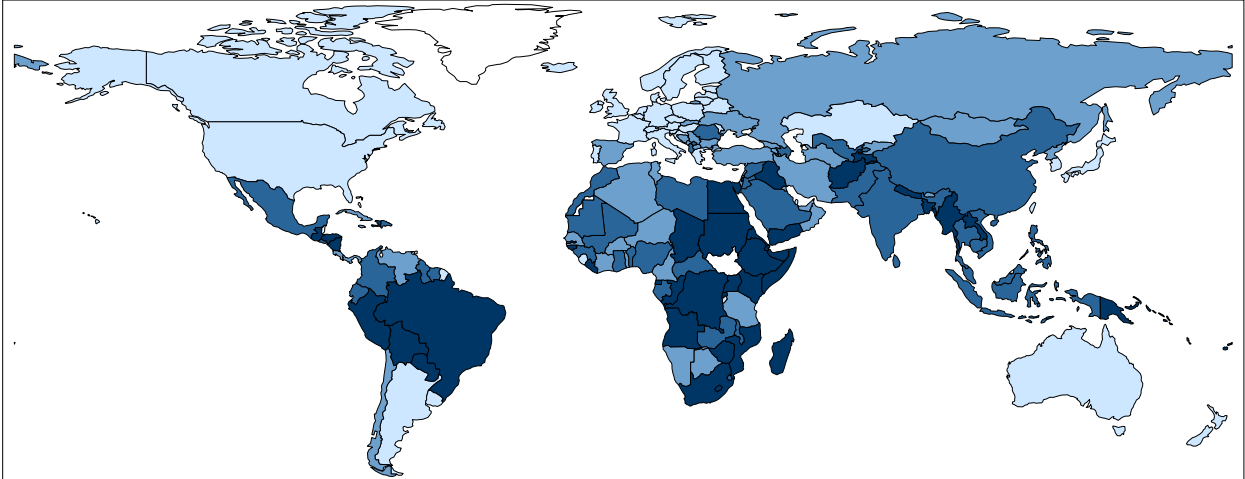
Table A1: Descriptive statistics for variables

Variable	Obs.	Mean	Std. Dev.	Min	Max
<u>Democratic transitions</u>					
Transition LIED 4	20,665	.0085652	.0921534	0	1
Transition LIED 5	20,665	.0082265	.0903282	0	1
Transition LIED 6	20,665	.0079361	.0887329	0	1
Transition BMR	12,695	.0108704	.1036972	0	1
<u>Democratic breakdowns</u>					
Breakdown LIED 4	20,665	.006194	.0784601	0	1
Breakdown LIED 5	20,665	.0054198	.0734212	0	1
Breakdown LIED 6	20,665	.0046455	.0680013	0	1
Breakdown BMR	12,695	.0070106	.0834388	0	1
<u>Ethnic inequality</u>					
Public services group inequality (V-Dem)	18,157	.5196193	.2372186	0	1
Educational group inequality (Omoeva et al.)	4,254	.093402	.1008074	0	.6191273
Spatial group inequality (Cederman et al.)	7,865	1.196887	.543869	1	6.773902
Composite group ineq. (Cederman et al.)	4,517	1.464307	.7325771	1	5.935248
<u>Controls</u>					
Latent GDP/cap (logged)	18,030	1.568311	1.251598	-1.254016	7.122956
Economic growth	12,529	.023258	.0794828	-1	2.72
Oil income pc. (logged)	10,673	1.590708	2.507685	0	11.272
Regional democracy (LIED 4)	20,665	.3311396	.3217522	0	1
Regional democracy (LIED 5)	20,665	.3072345	.3251042	0	1
Regional democracy (LIED 6)	20,665	.2919429	.3226256	0	1
Regional democracy (BMR)	12,695	.4004726	.3331761	0	1
State capacity (control of territory)	13,439	90.59227	11.4546	22.5	100
<u>Mechanisms</u>					
Mass mobilization	17,665	.4084378	.1770117	0	1
Pro-democratic mass mobilization	17,382	.3497148	.1706905	0	1
Ethnically-based regime opp.	18,355	.2038585	.2491199	0	1
Repression (general)	18,956	.4947757	.2884022	.025	.991
Repression (group-specific)	18,962	.5122912	.2154076	0	1
Non-violent campaigns*	7,440	.0134409	.1151607	0	1
Violent campaigns*	7,440	.0155914	.1238966	0	1
Repression of campaigns	7,440	.0251792	.1516415	0	1
Political polarization	17,989	.455166	.1604094	.0369412	.956
Mobilization for autocracy	17,473	.3309136	.1718351	.0957895	.9888158
Political violence	17,996	.4301078	.1586909	.0441176	.9427059
Judicial constraints	18,722	.4799938	.297107	.008	.997
Legislative constraints	14,591	.5217119	.3116163	.012	.986
Coup attempts	10,291	.0398406	.1955942	0	1
<u>Implication test</u>					
Public services socioecon. ineq. (V-Dem)	18,201	.3930455	.222634	.0055882	.9908823
SWIID income Gini	5,720	.4172136	.1780561	0	.9999999
Ethnic fractionalization (Alesina et al.)	10,681	.4781842	.275501	0	1
Ethnic fractionalization (Fearon)	9,275	.483891	.2577649	.003996	1
Cultural fractionalization (Fearon)	9,213	.426239	.2842837	0	1
Ethnic polarization	10,620	.4617911	.2729172	0	.9999999

Note: Due to different samples depending on the outcome studied, descriptive statistics are presented for the period 1900-2020. As mentioned in the relevant section below, ethnic diversity measures have been extrapolated to cover 1960-2020. *These NAVCO variables have been recoded to not include campaigns against foreign occupation, which are unrelated to the theoretical argument advanced.

Country graphs (cross-sectional map)

Figure A1: Expert-coded measure of inequality in public service provision between ethnic groups (2020)



Note: Darker shades indicate higher levels of ethnic inequality.

Figure A1 maps the measure in year 2020 to provide the reader with a sense of the data, including differing coverage and scoring of particular countries. As expected, the measure assigns relatively high scores to Guatemala, Brazil, Peru, Bolivia, South Africa, and Kenya where case studies have shown ethnic inequalities to be pronounced (Canelas and Gisselquist 2018; Figueroa and Barrón 2005; Leivas and dos Santos 2018; Molina 2007).

Country graphs (time-series)

Graphs are presented by country name for exposition purposes. Note that several countries shown separately here share the same country ID in the analysis (e.g. Germany/West Germany or USSR/Russia).

Figure A2: E. Europe and C. Asia

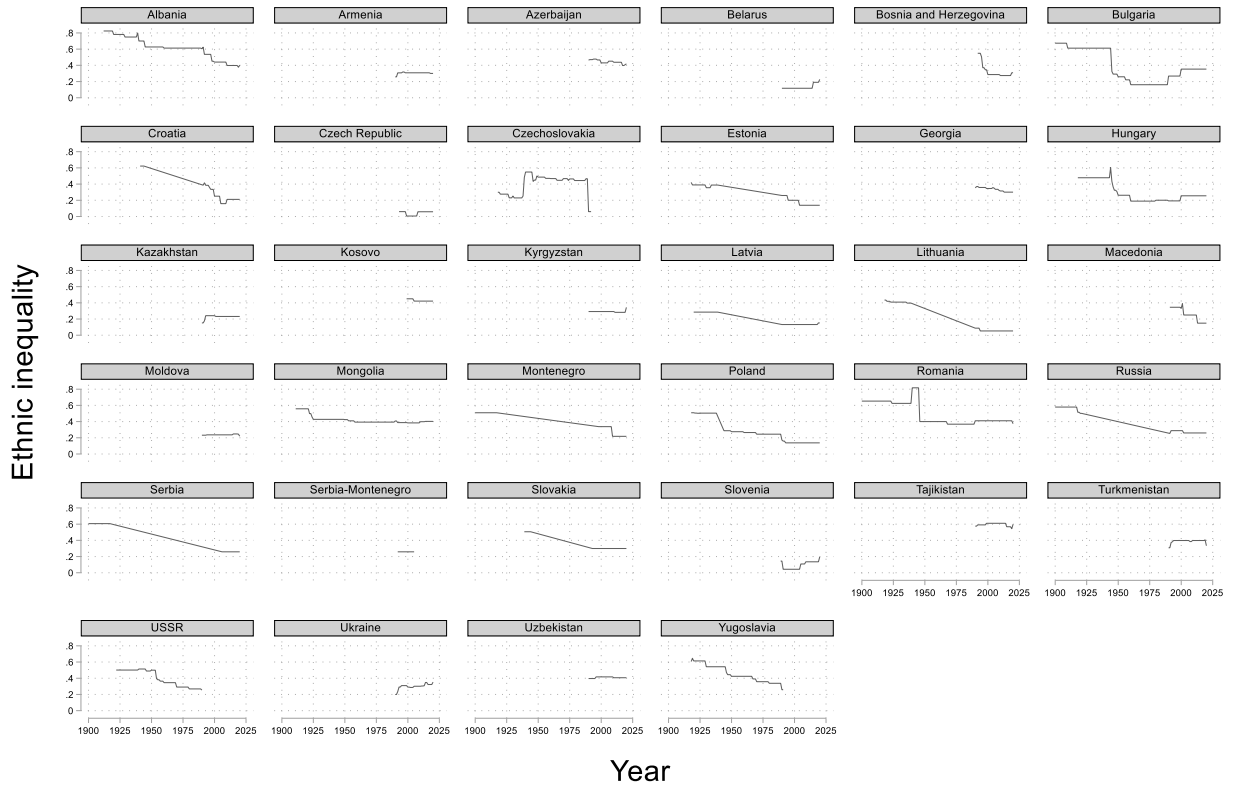


Figure A3: L. America and the Caribbean

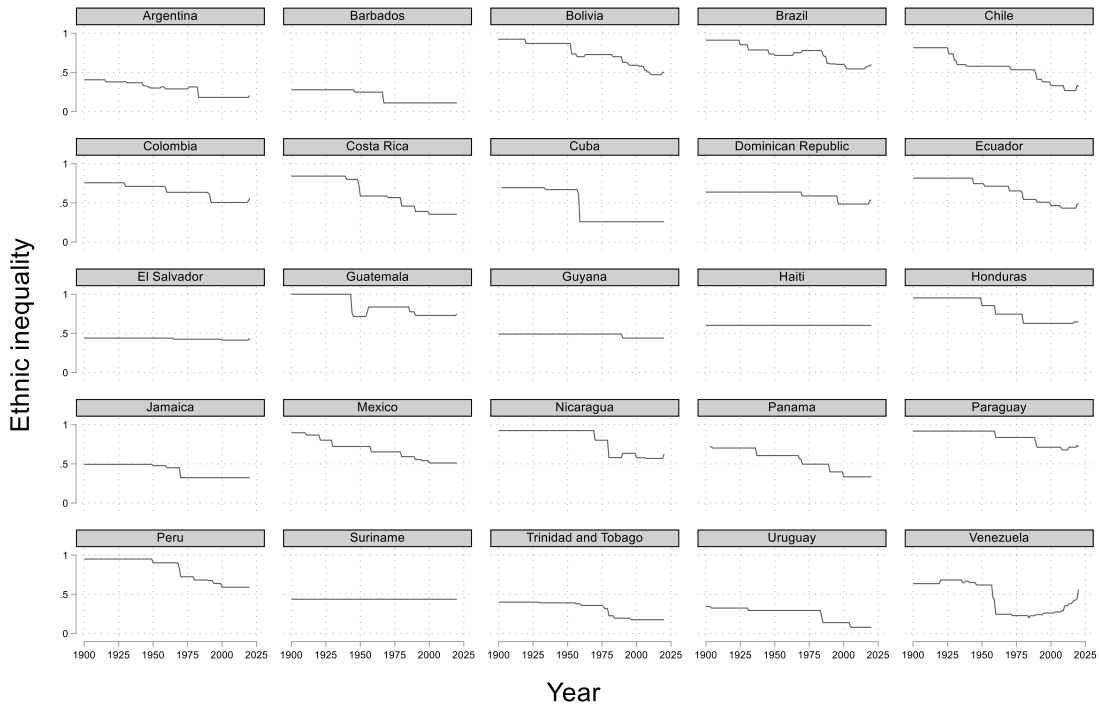


Figure A4: MENA

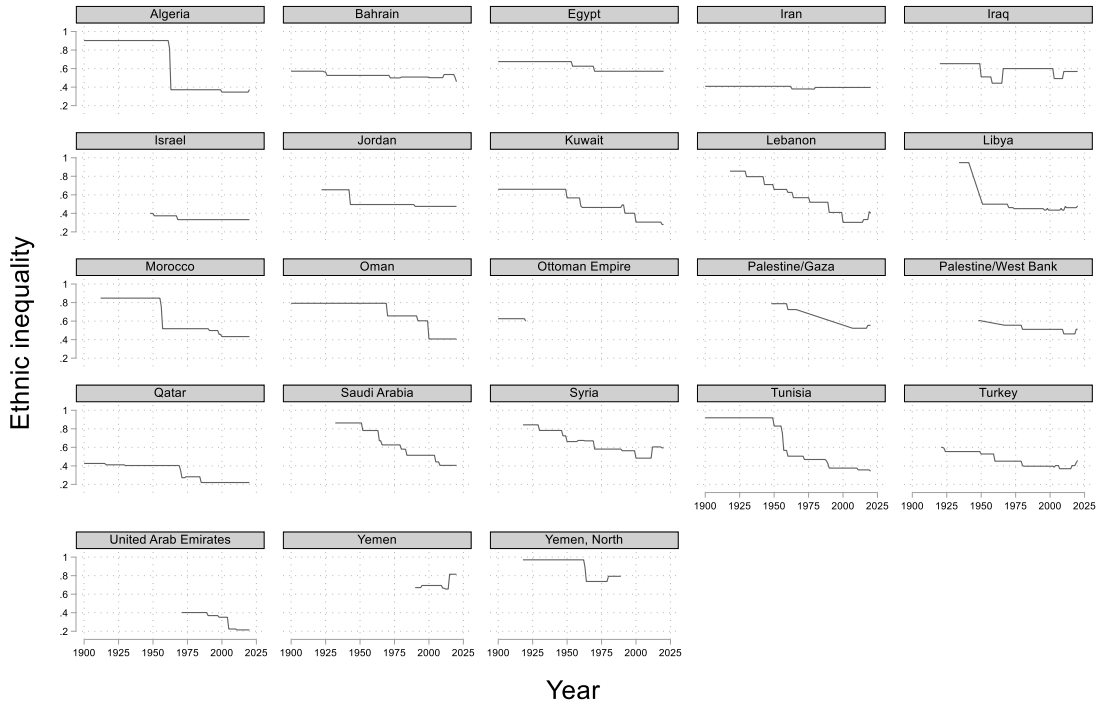


Figure A5: Sub-Saharan Africa (Panel A and B)

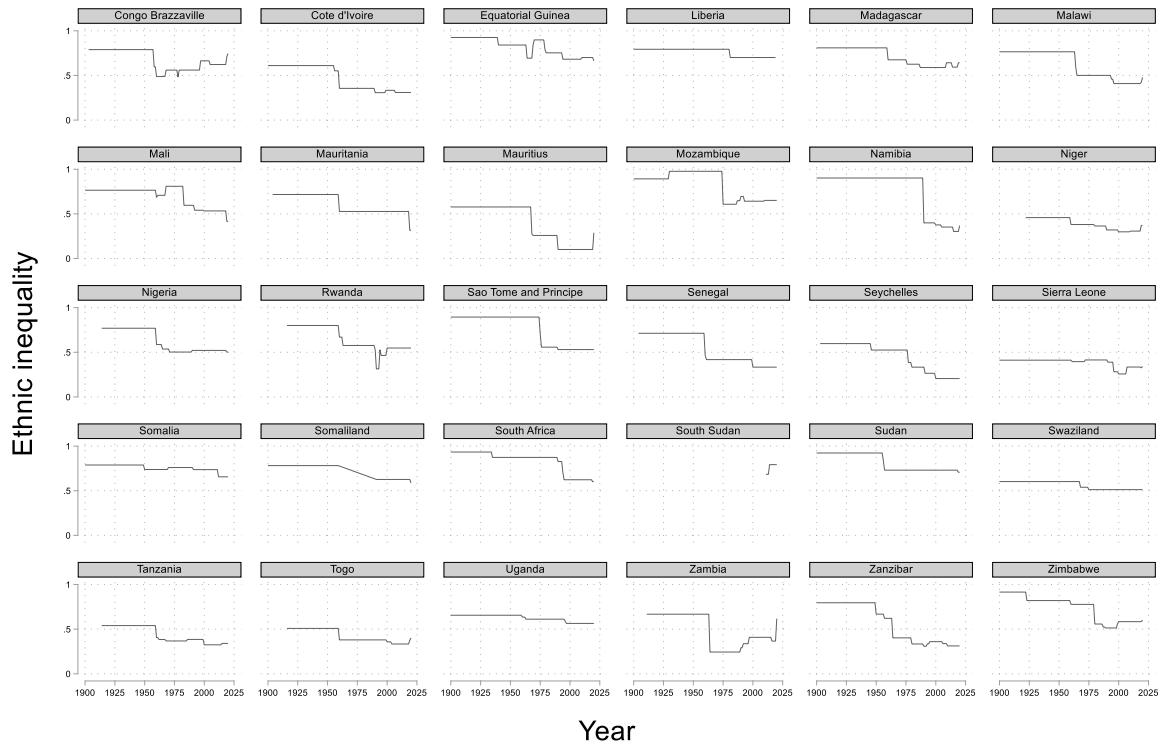
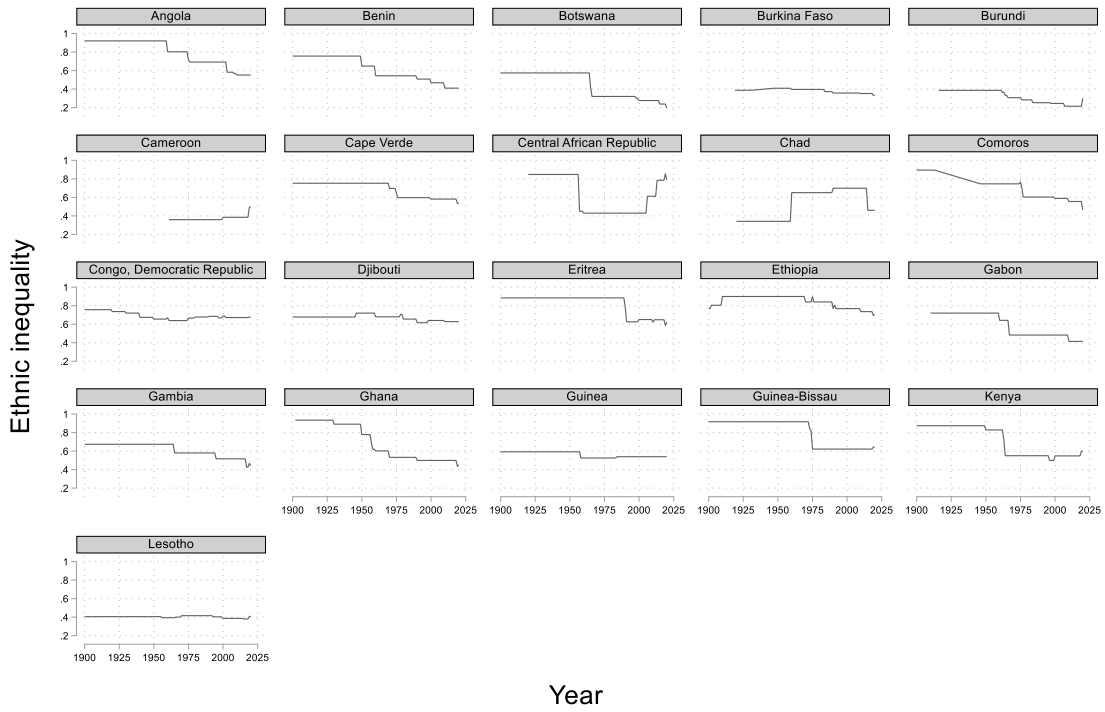


Figure A6: W. Europe and N. America

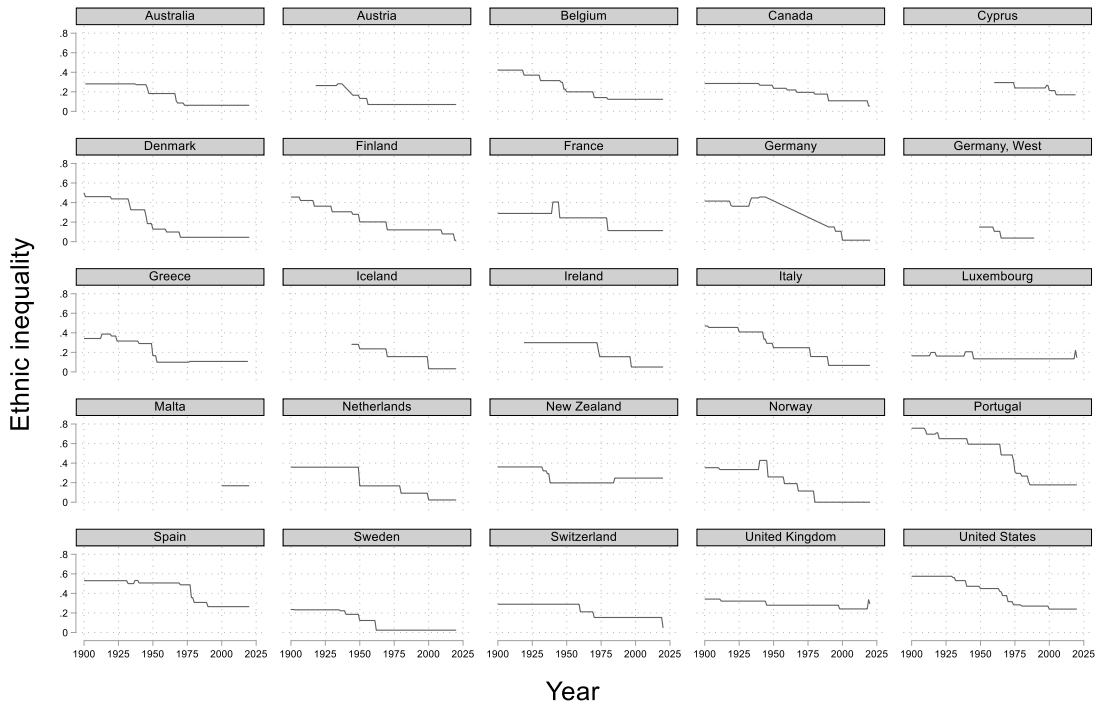
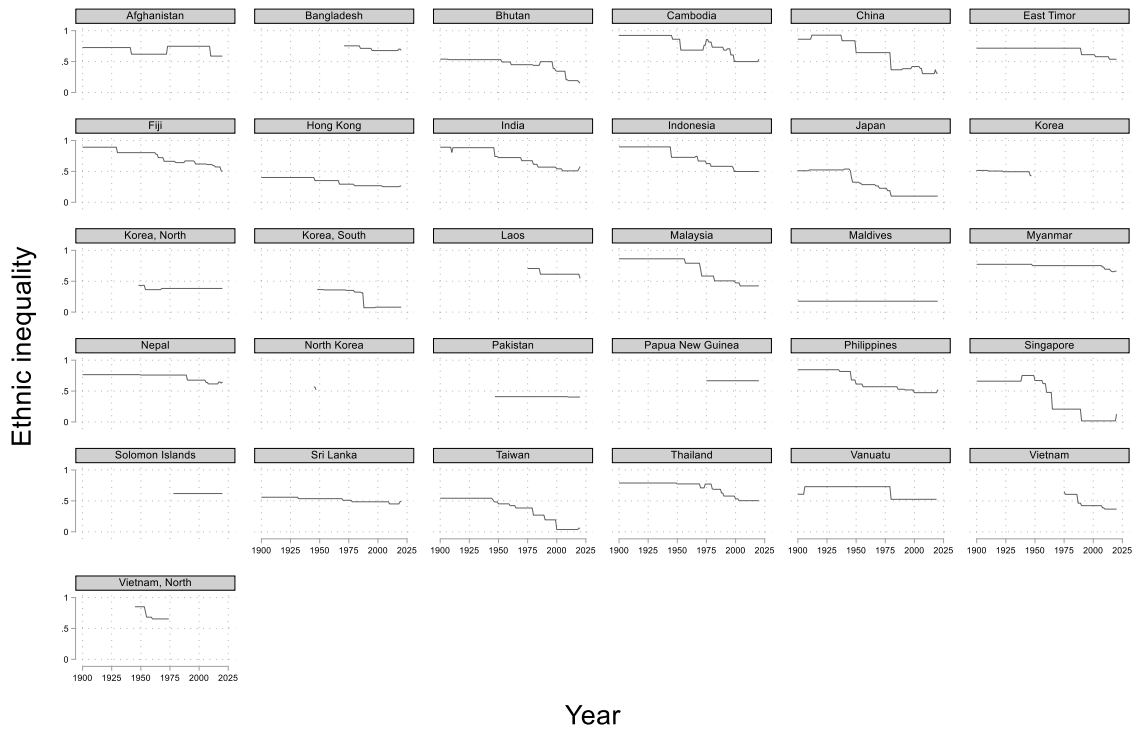


Figure A7: Asia and Pacific



Supplementary mechanism assessments

Group-level AMAR data

Using group-level expert-coded data from All Minorities at Risk (AMAR) dataset (Birnie et al. 2017), I provide an exploratory analysis of the suggested mechanisms. The *economic discrimination index* ranges from 0 to 4 with 0 indicating no group discrimination and 4 indicating formal exclusion and repressive public policies that restrict the group's economic opportunities. The sample covers 346 groups, mainly after 1980.

The *economic grievance index* ranges from 0-2 with 0 indicating that no economic grievances were expressed, 1 indicates grievances focused on ending discrimination and 2 grievances focused on creating or strengthening remedial policies.

The *protest* variable ranges from 0 to 5, where 0 indicates no reported protests and 5 indicates large demonstrations. The rebellion variable ranges from 0 (no reported) to 7 (full civil war). *Repression of group members engaged in nonviolent collective action* (e.g. politicians, human rights leaders, nonviolent protesters, etc.) ranges from 0 (none reported) to 5 (violent coercion, killing). *Repression of group members engaged in violent collective action* (e.g. guerillas, rioters) ranges from 0 (none reported) to 5 (violent coercion, killing).

To analyze the data, I employ OLS regression, controlling for country-level GDP/cap and country dummies, with errors clustered at the group-level. Table A2 shows that that in autocracies, economic discrimination (serving as a rough proxy of socioeconomic disadvantage) is associated with economic grievances in autocracies. As shown in Table A3, these grievances are associated with increased protest behavior and a greater likelihood of rebelling (bottom-up), and higher levels of group suppression (top-down).

Looking at the democratic sample in Tables A4-A5 also reveals a pattern consistent with the mechanism outlined for democratic breakdowns. Economic discrimination is associated with group-based economic grievances (A4), which are in turn associated with increased protest behavior and a greater likelihood of rebelling (A5). This supports the idea that ethnic inequality increases the probability political instability through mass mobilization. Compared with the autocratic sample in Table A3, economic grievances have a stronger relationship with protests and a weaker relationship with repression. This fits the logic of the overall argument according to which group mobilization is easier and less likely to be met with repression in democracies.

Autocratic sample

Table A2: Association between economic discrimination and economic grievances (autocratic sample)

	(1)
	Economic grievances
Economic discrimination	0.290*** (0.028)
GDP/cap	-0.017 (0.093)
Constant	1.172*** (0.225)
N	2211
Country FE	✓

Standard errors clustered by groups in parentheses. † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A3: Association between economic grievances and protests, rebellion, and repression (autocratic sample)

	(1)	(2)	(3)	(4)
	Protests	Rebellion	Repression of violent collective action	Rep. of nonviolent collective action
Economic grievances	0.378*** (0.042)	0.362*** (0.078)	0.500*** (0.146)	0.482*** (0.123)
GDP/cap	-0.049 (0.116)	-0.396* (0.182)	0.274 (0.203)	0.246* (0.123)
Constant	2.079*** (0.309)	0.672 (0.584)	1.481*** (0.440)	0.130 (0.207)
N	2217	2203	1449	1467
Country FE	✓	✓	✓	✓

Standard errors clustered by groups in parentheses. † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Democratic sample

Table A4: Association between economic discrimination and economic grievances (democratic sample)

	(1) Economic grievances
Economic discrimination	0.335*** (0.041)
GDP/cap	0.021 (0.188)
Constant	0.774 (0.552)
N	1946
Country FE	✓

Standard errors clustered by groups in parentheses. † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A5: Association between economic grievances and protests, rebellion, and repression (democratic sample)

	(1) Protests	(2) Rebellion	(3) Repression of violent collective action	(4) Rep. of nonviolent collective action
Economic grievances	0.535*** (0.061)	0.240** (0.076)	0.334* (0.130)	0.287*** (0.067)
GDP/cap	0.233 (0.271)	0.107 (0.238)	0.796* (0.331)	0.703† (0.366)
Constant	2.017** (0.753)	0.111 (0.976)	-2.677** (0.966)	-1.905† (1.084)
N	1960	1959	1162	1165
Country FE	✓	✓	✓	✓

Standard errors clustered by groups in parentheses. † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Country-level BTI data

In this section, I test a series of empirically observable implications of the main theoretical argument using expert-coded data from the Bertelsmann Transformation Index (BTI 2022), which provides a range of country-level indicators of political and economic development on a biannual basis from 2006-2022.

In this analysis, I include four BTI indicators that capture different dynamics consistent with the outlined theoretical argument. The first indicator *State identity*, asks to what extent all relevant groups in society agree about citizenship and accept the nation-state as legitimate. The variable is scaled from 0-10 with 0 indicating that the legitimacy of the nation-state is questioned fundamentally and that different population groups compete for hegemony and deny citizenship to others. 10 denotes that a large majority of the population accept the nation-state as legitimate, and that all individuals and groups enjoy the right to acquire citizenship without discrimination.

Second, I include an indicator capturing whether *equality of opportunity* exists. A 0 indicates that Equality of opportunity is not achieved, and that women and/or members of ethnic, religious and other groups have only very limited access to education, public office and employment, and there are no legal provisions against discrimination. Conversely, a 10 indicates that equality of opportunity is achieved and that a comprehensive and effective legal and institutional framework for the protection against discrimination.

Third, I include a variable capturing how serious *social, ethnic and religious conflicts* are. 0 indicates that there are no violent incidents based on social, ethnic or religious differences, whereas 10 indicates that civil war or widespread violent conflict based on social, ethnic or religious differences is present. Fourth, I include a measure of *Cleavage/conflict management*, which captures to what extent the political leadership is able to moderate cleavage-based conflict. 10 indicates that the “political leadership depolarizes cleavage-based conflict and expands consensus across the dividing lines”, whereas a 0 indicates that the political leadership exacerbates existing cleavages for populist or separatist purposes.

To test the implications, I check whether ethnic inequality predicts the mentioned BTI variables in the expected direction, both in autocracies and democracies. Table A6 presents the results of a series of OLS regressions of the selected BTI variables on the V-Dem measure of ethnic inequality. Due to the short time-series, I employ region-fixed effects, instead of country fixed-effects. Column 1-4 presents the results for autocracies, whereas 5-8 presents them for

democracies. Ethnic inequality is associated with lower agreement about citizenship and acceptance of the nation-state as legitimate (Columns 1 and 5). Ethnic Inequality is also associated with lower levels equal opportunity (Columns 2 and 6), more intensive conflicts (Columns 3 and 7) as well as less capable management of cleavages (4 and 8). Although the associations are generally stronger in autocracies, they can also be found in democracies. Overall, this analysis suggests that across regime type, ethnic inequalities are associated with a range of destabilizing dynamics, ranging from low identification with the state, citizenship disputes, unequal opportunities, conflict and poor management of cleavages.

Table A6: Ethnic inequality and BTI data

	Autocracies				Democracies			
	(1) State identity	(2) Equal opp.	(3) Conflict	(4) Cleavage	(5) State identity	(6) Equal Opp.	(7) Conflict	(8) Cleavage
Ethnic inequality	-5.211*** (1.076)	-4.648*** (0.822)	6.311*** (1.326)	-4.898*** (1.105)	-2.269* (0.885)	-2.077* (0.819)	4.057*** (1.004)	-2.417** (0.909)
GDP/cap	-0.038 (0.149)	0.478** (0.172)	-0.501* (0.214)	0.143 (0.206)	0.377* (0.157)	1.378*** (0.160)	-0.562** (0.208)	0.623*** (0.168)
N	472	472	472	472	552	552	552	551
Region F-E	✓	✓	✓	✓	✓	✓	✓	✓

Standard errors clustered by country in parentheses. All independent variables lagged one year.

† $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Formal mediation analysis

As a supplement to the investigation of the mechanisms in the main text, I also present results from a formal mediation analysis. To this end, I use a Stata package (“medeff”) developed by Hicks and Tingley (2011) – which builds on work by Imai et al. (2011) – to estimate the average causal mediation effect (ACME) of each of the variables capturing the two discussed theoretical mechanisms. The method enables an estimation of the ACME conditional on the identifying assumption of “sequential ignorability”, which requires that the treatment and mediator of interest are conditionally exogenous. As argued in the main text, the assumption of exogeneity does not appear realistic, which is why a simpler, more correlational approach was prioritized there.

The package only supports binary treatment variables. As a pragmatic solution, I split the treatment variable (ethnic inequality) at the median, assigning increases in ethnic inequality “1” and decreases “0”.¹ This step necessarily leads to less efficient estimates.

Table A7: Mediators between Ethnic Inequality and Democratic Transitions

Mediator	ACME	% of total effect mediated
Bottom-up mechanism		
Mass mobilization	0.0013	27
Pro-democratic mass mobilization	0.0033*	64
Ethnically-based regime-opposition	0.0004	8
Non-violent campaign onset	0.0000	0
Violent campaign onset	0.0000	0
Top-down mechanism		
Repression (general)	-0.0044*	91
Repression (group-specific)	-0.0034*	75
Repression of campaign	0.0002	2

*Indicates that 95% confidence intervals for the ACME do not include zero. Estimates rely on country- and year fixed effects, controls for GDP per capita with standard errors clustered on countries.

¹ The employed “medeff” package for Stata does not have a fixed effects option, and I have therefore demeaned the variables manually instead.

With these caveats in mind, Table A7 present the results for the democratic transition mechanism. Starting with the “bottom-up” mechanism, the mass mobilization, pro-democratic mass mobilization and ethnic regime opposition variables are signed in the expected, positive direction. In particular, the pro-democratic mass mobilization variable appears to mediate the relationship between ethnic inequality and democratic transitions. Meanwhile, the NAVCO campaign variables do not seem to mediate the relationship. This contrast with the analysis in main text, where ethnic inequality is associated with both violent and non-violent campaigns, and where non-violent campaigns are associated with a higher likelihood of democratization. Continuing to the “top down” mechanism, both general and group-specific repression appear to moderate the relationship in the expected, negative direction. Similarly to the related exercise in the main text, the repression of specific campaigns variable shows no clear pattern.

Looking at democratic breakdowns in Table A8, all potential mediators are signed in the expected, positive direction. Moreover, polarization, mobilization for autocracy, political violence and the two variants of power concentration appear to mediate the relationship between ethnic inequality and breakdown. The most significant difference compared with the correlational analysis in the main text is that coup attempts are not significant.

To summarize, although the results from these analyses should be interpreted with caution, it is reassuring that they are in line with the correlational mechanism study in the main text.

Table A8: Mediators between Ethnic Inequality and Democratic Breakdowns

Mediator	ACME	% of total effect mediated
Political polarization		
Political polarization	0.0064*	61
Mass anti-dem. behavior		
Mobilization for autocracy	0.0044*	41
Ethnic regime opposition	0.0007	6
Political violence	0.0051*	49
Violent campaign onset	0.0010	8
Elite anti-dem. behavior		
Power concentration (jud.)	0.0042 *	41
Power concentration (leg.)	0.0031*	35
Coup Attempts	0.0037	45

* Indicates that 95% confidence intervals for the ACME do not include zero. Estimates rely on country- and year fixed effects, controls for GDP per capita with standard errors clustered on countries.

Implication test: ethnic diversity and democratic breakdowns

The following analysis examines whether various measures of ethnic heterogeneity are related to democratic breakdowns. If my argument is correct that ethnic inequality is particularly inauspicious for democratic stability, I should *not* be able to find a relationship with measures of ethnic heterogeneity – or at least, it should be much weaker.

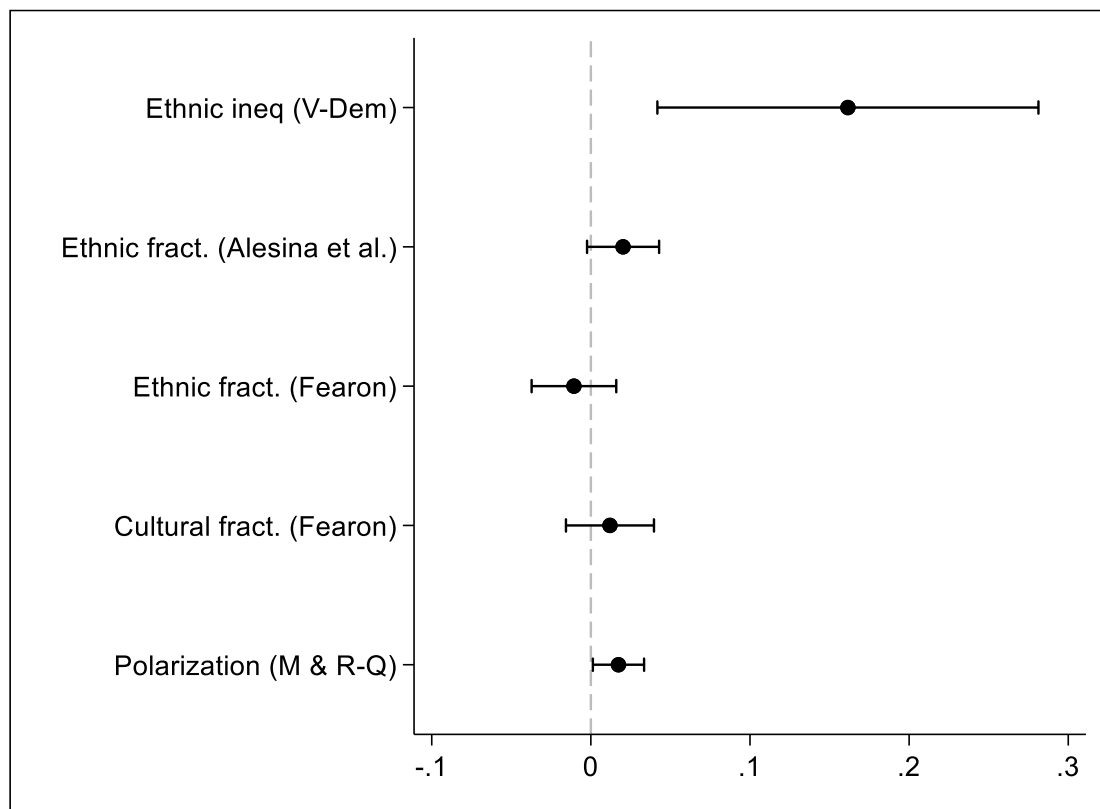
To examine this proposition, I use the following, well-known ethnic heterogeneity measures: a measure of linguistic-ethnic fractionalization by Alesina et al. (2003); a measure of ethnic fractionalization by Fearon (2003); a measure of cultural (linguistic) fractionalization that accounts for linguistic distances among groups also by Fearon (2003); and a measure of ethnic polarization, using the index by Montalvo and Reynal-Querol (2005). The latter achieves a maximum score when a country consists of two groups of equal size. These measures are time-invariant. To make the estimates comparable to the main findings and the supplement analysis of non-ethnic inequality, I have extended (extrapolated) the time-invariant measures to the period between 1960 and 2020.²

The Results in Figure A8 shows that there is a weak positive relationship between the Alesina et al. fractionalization measure and breakdowns (significant at the 0.1 level). The ethnic fractionalization measure by Fearon is negatively, though not statistically significantly, associated with democratic breakdowns. Meanwhile, the cultural fractionalization measure by Fearon is positively associated with democratic breakdowns, but also not statistically significant. Finally, the coefficient for ethnic polarization is positive and statistically significant at the 0.05 level. Note that across the three heterogeneity measures, the coefficients are very small compared to the one for ethnic inequality.

Overall, this suggests that ethnic inequality between ethnic groups is a much stronger predictor of democratic breakdowns than various measures of ethnic heterogeneity.

² Restricting the sample for the V-Dem ethnic inequality measure to 1960-2020 yields very similar results (see Table A19).

Figure A8: Measures of ethnic heterogeneity and democratic breakdown



Notes: Lines indicate 95 % confidence intervals. The analysis of the heterogeneity measures rely on OLS estimators with decade dummies and controls for GDP per capita. For sake of comparison the variables have been rescaled to range from 0-1.

Country examples: democratic breakdowns

The following section provides country examples, which illustrate the argument linking ethnic inequality and democratic breakdown. As mentioned in the main text, such dynamics have already been identified in comparative case studies, which suggests that distributional conflict between ethnic groups and ensuing polarization contributed to democratic breakdowns in multiple countries, both during the interwar years (Poland, Lithuania, Yugoslavia, Germany, Latvia, and Spain) and after 1945 (Pakistan, Bangladesh, Indonesia, Myanmar, Sudan, Nigeria, Lebanon, Sri Lanka, and Ecuador) (Andersen 2017, ch. 8-10). Other relevant cases include Guatemala and Peru, in which ethnic inequality has contributed to democratic breakdown (Houle 2015). In the following, I go into more detail with two additional country examples.

Fiji

Fiji's 1987 general election was won by an Indo-Fijian coalition party with overwhelming support by the Indo-Fijian community, but with very little support from ethnic Fijians. Two military coups occurred that same year, led by Colonel Sitiveni Rabuka, which were followed by a new Constitution that institutionalized the political dominance of ethnic Fijians. A third coup led by a group of ethnic Fijian nationalists followed the elections of 1999, which ultimately resulted in the discharge of the first Indo-Fijian prime Minister Mahendra Chaudhry' (McCarthy 2011, 566).³ In both coup years, elected governments with a significant Indo-Fijian participation were clearly seen by elements of the indigenous Fijian community as posing a redistributive challenge to existing prerogatives (Haggard, Kaufman, and Teo 2012, 77-78; Lawson 1991, 201; McCarthy 2011, 563). The Island State's unstable democratic trajectory illustrates a more general dynamic: that dominant groups may seek to undermine democratic competition to safeguard their socioeconomic interests, and that distributive conflicts may become particularly destabilizing for democracy if ethnic categories and economic inequality overlap.

Nepal

Nepal's democratization in 1990 did not lead to political inclusion and significant socioeconomic advances for disadvantaged groups. Despite the demands for power-sharing institutions by

³ "Fiji's coup of 2006 was unlike the previous coups because the event was not aimed at protecting the interests of indigenous Fijians against ethnic Indians (McCarthy 2011).

historically excluded groups,⁴ the new constitution adopted a first-past-the-post method, a unitary state structure, included discriminating constitutional articles, and Nepal officially remained a Hindu kingdom (Lawoti 2008, 374-76; 2010b, 10). These institutions helped to continue the historical dominance of the state by hill “high”-caste Hindus (CHHE) (Lawoti 2010b; Lawoti and Hangen 2013, 14, 18). Unsurprisingly, non-CHHE groups were generally unsatisfied with the 1990 Constitution (Hangen 2010, 32-33; Lawoti and Hangen 2013, 15; Shakya 2010, 53).

In 1996, an armed conflict between Maoist rebels and the state erupted that lasted 10 years and left more than 13,000 people dead and hundreds of thousands displaced. Although the rhetoric of the movement was predominantly ideological, mobilization occurred mainly along ethnic and regional lines (Brown 2011, 295). The massacre of King Birendra and his immediate family in 2001 created further instability. The new king, Gyanendra, dismissed an elected government in 2002 and in February 2005 seized direct control of the country, dismantling democracy until 2006, when a popular movement forced the king resign.

Several factors contributed to the democratic breakdown in 2002, some of which directly relate to group inequalities. Nepal was challenged by grave political instability with disputes within and between major parties and short-lived government (Hangen 2010, 23). Moreover, the continued political and socioeconomic inequality formed the basis for the mobilization of excluded groups by Maoist leaders (cf. Brown 2011; Fukuda-Parr 2011, 97; Lawoti 2010b, 18; Tiwari 2010, 33-34, 43). The continued exclusion of large marginalized groups lead to widespread perceptions that the democratic polity was illegitimate (Kantha 2010). This meant that anti-democratic forces could cultivate the excluded and dissatisfied groups. For instance, after the dismissal of the elected government in 2002, the King’s new cabinet included a higher number of individuals from marginalized groups compared to those formed by the political parties during the 1990 (Lawoti 2008, 373). In sum, there are clear indications that a combination of political exclusion, socioeconomic inequality and lack of cultural recognition hindered the consolidation of democracy in Nepal.

⁴ The indigenous nationalities, Dalit and Madhesi collectively constitute more than two thirds of the population but have historically been politically excluded and discriminated against (Lawoti 2010a, 18).

Robustness tests

Controls for inequality at time of transition

To address potential endogeneity issues, I present results in Table A9 that control for the level of ethnic inequality in the year of democratic transition. Reassuringly, these results remain similar to the main results.

Table A9: Controls for ethnic inequality in year of transition

	Breakdown		
	(1)	(2)	(3)
Ethnic inequality	0.171* (0.077)	0.166* (0.078)	0.169* (0.079)
Ethnic ineq. at transition	-0.015 (0.100)	-0.011 (0.105)	0.012 (0.092)
GDP pc.		-0.004 (0.015)	-0.023 (0.019)
GDP growth			-0.075 (0.055)
Oil			0.004* (0.002)
Regional democracy			-0.082* (0.038)
State capacity			0.000 (0.001)
N	5323	5311	3409
Countries	132	131	106
Country F-E	✓	✓	✓
Year F-E	✓	✓	✓

Standard errors clustered by country in parentheses. All independent variables lagged one year.

† $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Controls for inequality in public services by socio-economic status

The V-Dem ethnic inequality measure could be associated with a range of other features of poor democratic performance rather than ethnic tensions. To further examine this potential confounding, the specification in Table A10 below controls for V-Dem's measure of inequality in access to public services by socio-economic group (i.e., not ethnicity). The latter variable may also be associated with poor democratic performance, though without capturing dynamics specific to ethnic inequality, which is the variable of interest. The results below are very similar to the main specification, indicating that omitted variables related to general poor performance is unlikely to drive the findings.

Table A10: Controls for public services by socio-economic status

	Transitions			Breakdowns		
	(1)	(2)	(3)	(4)	(5)	(6)
Ethnic inequality	-0.002 (0.027)	0.012 (0.032)	0.084 (0.061)	0.168* (0.076)	0.167* (0.076)	0.175* (0.086)
Public services	0.008 (0.028)	0.005 (0.033)	0.098† (0.054)	0.003 (0.076)	0.009 (0.077)	0.004 (0.091)
GDP pc.		0.004 (0.005)	0.019* (0.009)		-0.005 (0.014)	-0.023 (0.020)
GDP growth			-0.009 (0.017)			-0.075 (0.055)
Oil			-0.002 (0.002)			0.004* (0.002)
Regional democracy			0.124*** (0.030)			-0.082* (0.038)
State capacity			0.000 (0.000)			0.000 (0.001)
N	12335	9789	5533	5307	5295	3409
Countries	166	163	136	132	131	106
Country F-E	✓	✓	✓	✓	✓	✓
Year F-E	✓	✓	✓	✓	✓	✓

Standard errors clustered by country in parentheses. All independent variables lagged one year.

† $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0$.

Functional form

To see whether the relationship is non-linear (as suggested by Acemoglu and Robinson, 2005, for individual inequality), Figure A9 represents a binned scatterplot of the level of ethnic inequality against the probability of transitioning to democracy. There is a clear negative relationship. Meanwhile, there are no clear indications of an inverted U-shaped relationship. This is confirmed by inconclusive tests of a non-linear relationship by adding squared coefficients for ethnic inequality (Table A11).

Figure A9: Binned Scatterplot

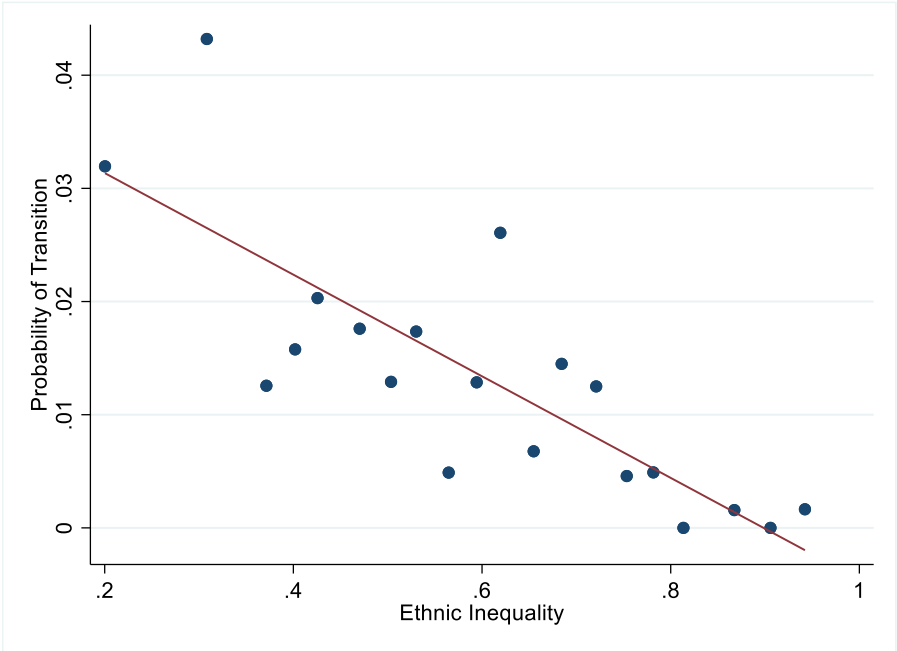


Table A11: Ethnic inequality (squared) and the probability of democratic transitions

	Transitions		
	(1)	(2)	(3)
Ethnic ineq.	0.042 (0.064)	0.080 (0.072)	0.023 (0.131)
Ethnic ineq. squared	-0.043 (0.051)	-0.060 (0.056)	-0.003 (0.093)
GDP pc.		0.006 (0.005)	0.021* (0.009)
GDP growth			-0.008 (0.017)
Oil			-0.002 (0.002)
Regional democracy			0.113*** (0.031)
State capacity			-0.000 (0.000)
N	12335	9789	5533
Countries	166	163	136
Country F-E	✓	✓	✓
Year F-E	✓	✓	✓

Standard errors clustered by country in parentheses. All independent variables lagged one year.
† $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Transition type

It may be possible that ethnic inequalities only affect certain types of transitions, for instance, by exerting particularly strong pressure ‘from below’ for a transition. Based on a LIED variable capturing modes of transition, I distinguish between incumbent-led and cooperative transitions on the one hand, and opposition-led transitions on the other hand. The results indicate that the insignificant relationship applies to both types (Table A12).

Table A12: Ethnic Inequality and democratic transition by transition types

	Incumbent-led			Opposition-led		
	(1)	(2)	(3)	(4)	(5)	(6)
Ethnic inequality	0.000 (0.015)	0.017 (0.018)	0.027 (0.032)	-0.007 (0.009)	-0.007 (0.011)	0.019 (0.046)
GDP pc.		0.005 (0.004)	0.013 [†] (0.007)		-0.000 (0.003)	0.021* (0.009)
GDP growth			-0.003 (0.012)			-0.008 (0.017)
Oil			-0.002 (0.002)			-0.002 (0.002)
Regional democracy			0.065** (0.025)			0.113*** (0.030)
State capacity			-0.000 (0.000)			-0.000 (0.000)
N	12335	9789	5533	12335	9789	5533
Countries	166	163	136	166	163	136
Country F-E	✓	✓	✓	✓	✓	✓
Year F-E	✓	✓	✓	✓	✓	✓

Standard errors clustered by country in parentheses. All independent variables lagged one year.

[†] $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Breakdown type

Are these associations the same across different types of democratic breakdowns? Based on the lexical index of democracy, I have looked at two types of breakdowns based on the Lexical Index' disaggregated coding: incumbent-led (N=47) and coups (N=64). In Table A10, ethnic inequality is associated with a higher likelihood of democratic breakdown, both by means of incumbent-led reversals and coups. However, the association with coups appears to be slightly stronger.

Table A13: Ethnic inequality and democratic breakdown by type

	Incumbent-led			Coups		
	(1)	(2)	(3)	(4)	(5)	(6)
Ethnic inequality	0.064 [†] (0.033)	0.066 [†] (0.034)	0.058* (0.028)	0.102* (0.048)	0.095* (0.047)	0.115 [†] (0.066)
GDP pc.		0.004 (0.006)	0.001 (0.009)		-0.009 (0.013)	-0.024 (0.017)
GDP growth			-0.017 (0.030)			-0.059 (0.047)
Oil			0.001 (0.001)			0.003* (0.002)
Regional democracy			-0.012 (0.016)			-0.070* (0.031)
State capacity			0.000 (0.001)			0.000 (0.001)
N	5323	5311	3409	5323	5311	3409
Countries	132	131	106	132	131	106
Country F-E	✓	✓	✓	✓	✓	✓
Year F-E	✓	✓	✓	✓	✓	✓

Standard errors clustered by country in parentheses. All independent variables lagged one year.

[†] $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Alternative democracy measures

Table A14: LIED 4

	Transitions			Breakdowns		
	(1)	(2)	(3)	(4)	(5)	(6)
Ethnic inequality	-0.010 (0.019)	0.006 (0.024)	0.025 (0.055)	0.164** (0.050)	0.163** (0.050)	0.181** (0.065)
GDP pc.		0.006 (0.006)	0.026** (0.009)		0.002 (0.013)	-0.011 (0.017)
GDP growth			-0.004 (0.017)			-0.046 (0.047)
Oil			-0.002 (0.002)			0.002 (0.002)
Regional democracy			0.140*** (0.034)			-0.083* (0.035)
State capacity			-0.000 (0.000)			0.001 (0.001)
N	11905	9359	5168	5753	5741	3774
Countries	163	160	133	132	131	106
Country F-E	✓	✓	✓	✓	✓	✓
Year F-E	✓	✓	✓	✓	✓	✓

Standard errors clustered by country in parentheses. All independent variables lagged one year. † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A15: LIED 6

	Transitions			Breakdowns		
	(1)	(2)	(3)	(4)	(5)	(6)
Ethnic inequality	-0.020 (0.019)	-0.003 (0.023)	0.004 (0.049)	0.170** (0.062)	0.171** (0.061)	0.172* (0.075)
GDP pc.		0.005 (0.005)	0.017† (0.010)		0.004 (0.014)	-0.016 (0.023)
GDP growth			-0.007 (0.017)			-0.087 (0.060)
Oil			-0.001 (0.002)			0.002 (0.002)
Regional democracy			0.104*** (0.025)			-0.063 (0.038)
State capacity			0.000 (0.000)			0.000 (0.001)
N	12626	10080	5799	5032	5020	3143
Countries	167	164	137	132	131	106
Country F-E	✓	✓	✓	✓	✓	✓
Year F-E	✓	✓	✓	✓	✓	✓

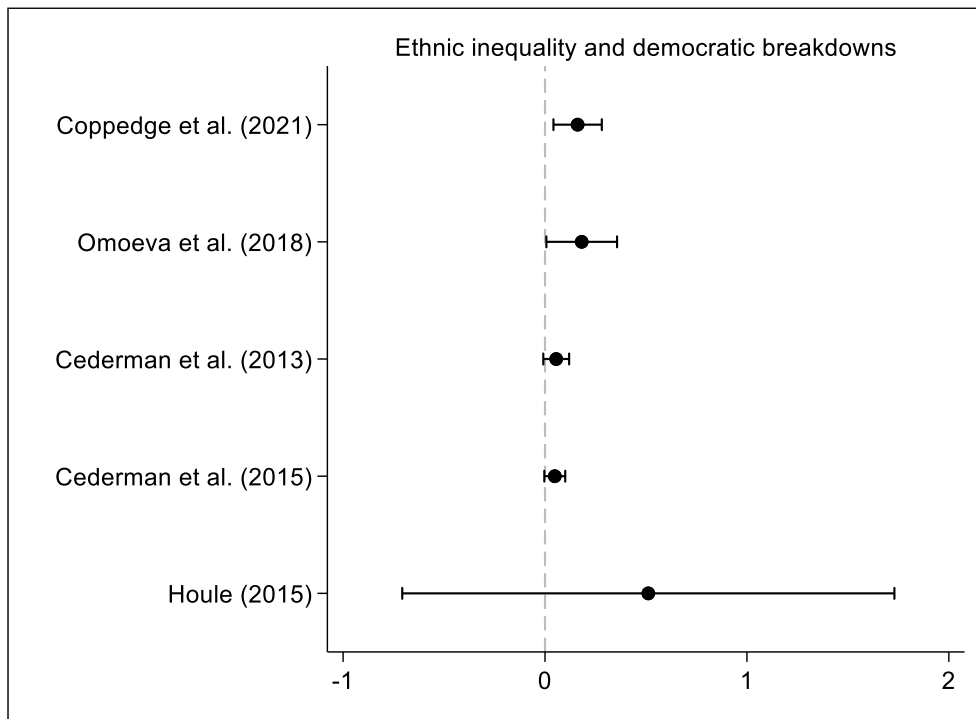
Standard errors clustered by country in parentheses. All independent variables lagged one year. † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Alternative ethnic inequality measure for breakdown analysis

I also run the analysis with data from Houle (2015), which covers 89 countries from 1960 to 2007 that have been democratic for at least one year and are ethnically heterogeneous. This exclusive focus on democracies does not allow me to study the effects of transitions. However, I can compare the results with the breakdown analysis.

As Houle investigates how the effect of between-group inequality (BGI) is conditioned by within-group inequality (WGI), the shown coefficient represent this interaction term (BGIxWGI). A positive coefficient indicates that higher ethnic inequality increases the likelihood of democratic breakdown, meaning that this coefficient is comparable to the others. For comparability, all variables have been rescaled to range from 0-1.

Figure A10: Alternative ethnic inequality measures – with Houle (2015)



Notes: In line with the baseline results, the specifications with the Coppedge et al. and Omoeva et al. measures are estimated using OLS with two-way fixed effects and control for GDP per capita and errors clustered on country. The analyses of the Cederman et al. and Houle measures are estimated using OLS with decade dummies, controls for GDP per capita and errors clustered on country. The lines around the point estimates represent 95% confidence intervals.

While signed in the right direction, the coefficient for the Houle measure has very large confidence intervals and is not statistically significant (switching between probit and OLS with fixed effects does not alter this finding, see below). Moreover, only using the between-group inequality measures (and not the interaction term) also shows no strong results. In short, I am not able to fully reproduce my results with the measure by Houle. To some extent, this may reflect a small sample (around 1,496) compared with the Coppedge et al. (5,426) and Cederman et al. measures (1,971- 3,109). The sample for this analysis also has the lowest number of breakdowns (29) compared to 109 for the V-Dem measure or 62 for the Cederman et al. 2013 measure, which could strongly affect the results. At any rate, it is reassuring that all measures are signed in the right direction.

Below, I show the results for the Cederman et al. measures and the Houle measure with a probit specification. The coefficients for the Cederman et al. measures are both positive and significant at the 0.05 level. Meanwhile, the coefficient for the Houle variable (BGIXWGI) is positive and large, but very imprecisely estimated and not statistically significant.

Table A16: Alternative ethnic inequality measures with Probit

	(1) Cederman et al. (2013)	(2) Cederman et al. (2015)	(3) Houle (2015)
Ethnic Inequality	1.275*** (0.331)	0.731* (0.369)	
BGI X WGI			7.677 (7.677)
BGI			-5.306 (4.451)
WGI			0.400 (0.801)
GDP pc	-0.519*** (0.073)	-0.407*** (0.084)	-0.375** (0.132)
Observations	3109	1971	1496
Countries	111	87	67

Notes: probit estimates, decade dummies and control for GDP per capita. Standard errors clustered by country in parentheses. All independent variables lagged one year. † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Restricted sample: excluding one region at the time

Tables A17-A18 restrict the sample by one politico-geographic region at a time, to ensure that a particular group of countries is not driving the results.

Table A17: Restricted sample - transitions

	(1) Excluding E. Europe and C. Asia	(2) Excluding L. America and the Caribbean	(3) Excluding Middle East & N. Africa	(4) Excluding S. Saharan Africa	(5) Excluding W. Europe and N. America	(6) Excluding Asia and Pacific
Ethnic Inequality	-0.004 (0.023)	-0.001 (0.023)	0.011 (0.030)	0.054 [†] (0.028)	0.012 (0.023)	-0.014 (0.025)
GDP per capita	0.004 (0.006)	0.003 (0.005)	0.008 (0.006)	0.011 (0.007)	0.003 (0.005)	-0.000 (0.006)
N	8768	8039	8159	6754	9269	7959
Countries	138	138	145	114	145	138
Country F-E	✓	✓	✓	✓	✓	✓
Year F-E	✓	✓	✓	✓	✓	✓

Standard errors clustered by country in parentheses. All independent variables lagged one year.

[†] $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A18: Restricted samples - breakdowns

	(1) Excluding E. Europe and C. Asia	(2) Excluding L. America and the Caribbean	(3) Excluding Middle East & N. Africa	(4) Excluding S. Saharan Africa	(5) Excluding W. Europe and N. America	(6) Excluding Asia and Pacific
Ethnic Inequality	0.125* (0.062)	0.136* (0.056)	0.160* (0.064)	0.181** (0.061)	0.159 (0.113)	0.152* (0.062)
GDP per capita	-0.000 (0.013)	-0.005 (0.017)	-0.001 (0.014)	-0.018 (0.015)	-0.032 (0.023)	0.009 (0.013)
N	4680	4236	5117	4640	3205	4677
Countries	107	106	125	99	107	111
Country F-E	✓	✓	✓	✓	✓	✓
Year F-E	✓	✓	✓	✓	✓	✓

Standard errors clustered by country in parentheses. All independent variables lagged one year.

[†] $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The results are generally in line with the main findings, with the exception of Table A15, Column 5, which removes North America and Western Europe from the breakdown analysis. The coefficient is signed correctly and of similar magnitude as the other, yet has a fairly large standard error. Note that this sample restriction removes by far the most observations of the six estimates in Table A15. This probably contributes to larger errors and imprecise estimation, explaining the insignificant results.

Temporally restricted sample

To ensure that the results using V-Dem data are not sensitive to the period under study, Table A19 restricts the sample to after 1960. Despite a significantly smaller number of observations, the results are very similar to the main findings.

Table A19: Temporally restricted sample

	Transitions			Breakdowns		
	(1)	(2)	(3)	(4)	(5)	(6)
Ethnic inequality	-0.057 [†] (0.033)	-0.051 (0.035)	-0.061 (0.061)	0.148* (0.067)	0.143* (0.064)	0.193* (0.079)
GDP pc.		0.006 (0.007)	0.015 (0.010)		-0.007 (0.019)	-0.023 (0.033)
GDP growth			-0.013 (0.025)			-0.088 (0.108)
Oil			-0.005* (0.003)			0.003 [†] (0.002)
Regional democracy			0.219*** (0.049)			-0.048 (0.038)
State capacity			-0.000 (0.001)			-0.000 (0.002)
N	5504	5401	3819	4308	4301	2548
Countries	144	141	120	131	130	105
Country F-E	✓	✓	✓	✓	✓	✓
Year F-E	✓	✓	✓	✓	✓	✓

Standard errors clustered by country in parentheses. All independent variables lagged one year.

[†] $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Longer lags

Table A20 provides results with five-year lags to provide more assurance against circularity. Reassuringly, columns 1-6 are very similar to the main results.

Table A20: 5-year lags

	Transitions			Breakdowns		
	(1)	(2)	(3)	(4)	(5)	(6)
Ethnic inequality	-0.005 (0.014)	0.011 (0.017)	0.033 (0.031)	0.088* (0.035)	0.097** (0.035)	0.085* (0.038)
GDP pc.		0.007† (0.004)	0.015* (0.007)		0.018† (0.009)	0.005 (0.011)
GDP growth			-0.001 (0.014)			-0.017 (0.038)
Oil			-0.000 (0.002)			0.001 (0.001)
Regional democracy			0.026 (0.021)			-0.026 (0.024)
State capacity			-0.000 (0.000)			-0.001* (0.000)
N	12028	9513	5533	4885	4873	3409
Countries	166	163	136	129	128	106
Country F-E	✓	✓	✓	✓	✓	✓
Year F-E	✓	✓	✓	✓	✓	✓

Standard errors clustered by country in parentheses.

† $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0$.

Longer panels

Treisman (2020) proposes a conditional modernization theory, in which increasing income only creates a predisposition toward democracy. Additional factors are required to trigger regime changes, and such factors only occur intermittently. Within a given year, a trigger may be unlikely to occur, but within a 10-year period, the odds are much higher. To test whether similar dynamics could be a play with regard to ethnic inequality, I analyze the relationship between ethnic inequality and democracy emerges when employing longer panels (5, 10 and 20 year panels)

To ensure sufficient observations with longer panels, I have exchanged the dependent variables (transition events) with a dichotomous measure of democracy (LIED 5) on which the

event codings are based. The following analysis thus present fixed-effects regressions of whether ethnic inequality is associated with changes to democracy (autocratic sample). The results for the analyses shown in Table A21 are consistent with the main results.

Table A21: Longer panels (To democracy)

	5 year panels			10 year panels			20 year panels		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ethnic inequality	-0.007 (0.038)	0.012 (0.052)	-0.113 (0.142)	-0.061 (0.060)	-0.056 (0.076)	-0.260 (0.289)	-0.095 (0.102)	-0.149 (0.123)	0.142 (0.345)
GDP pc.		0.000 (0.009)	0.019 (0.022)		-0.005 (0.012)	0.037 (0.040)		-0.025 (0.017)	0.018 (0.059)
GDP growth			0.062 (0.136)			0.011 (0.222)			-0.371 (0.371)
Oil			-0.004 (0.004)			0.002 (0.008)			0.011 (0.011)
Regional democracy			0.162* (0.080)			0.308* (0.149)			0.175 (0.260)
State capacity			-0.002† (0.001)			-0.004† (0.002)			-0.003 (0.003)
N	2452	1939	1086	1215	956	507	600	488	262
Countries	163	160	132	157	153	128	148	143	122
Country F-E	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year F-E	✓	✓	✓	✓	✓	✓	✓	✓	✓

Standard errors clustered by country in parentheses. All independent variables lagged one time period.

† $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0$.

Controls for regime age

In Table A22, I control for the current length (number of years) of the autocratic or democratic spell. Specifically, I control for the cubic polynomial of years since the start of the democracy/autocracy spell (i.e. regime age, regime age squared and regime age cubed in same specifications). Starting with democratic transitions, the bivariate specification in Column (1) is now significant. However, this relationship disappears once I add various controls in Columns (2) and

r(3). Looking at Columns (4-6), the relationship with democratic breakdowns remain statistically significant and of similar magnitude as the main specification.

Table A22: Cubic polynomial of years since the start of the democracy/autocracy spell

	Transitions			Breakdowns		
	(1)	(2)	(3)	(4)	(5)	(6)
Ethnic inequality	-0.086*** (0.019)	-0.045 [†] (0.023)	-0.001 (0.035)	0.296*** (0.052)	0.176*** (0.052)	0.166* (0.069)
GDP pc.		0.014** (0.005)	0.020* (0.009)		-0.040* (0.016)	-0.038 [†] (0.020)
GDP growth			-0.027 (0.017)			-0.082 [†] (0.047)
Oil			-0.002 (0.002)			0.005* (0.002)
Regional democracy			0.120*** (0.023)			-0.044 (0.027)
State capacity			-0.000 (0.000)			0.000 (0.001)
N	12335	9789	5533	5323	5311	3409
Countries	166	163	136	132	131	106
Country F-E	✓	✓	✓	✓	✓	✓
Regime age polynomials	✓	✓	✓	✓	✓	✓

Standard errors clustered by country in parentheses. All independent variables lagged one year.

[†] $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Probit estimates

Table A23 presents the main results using a probit estimator. Specifically, I have used the “probitfe” package, which helps to deal with bias usually encountered when employing probit with fixed-effects panel-data (Cruz-Gonzalez, Fernández-Val, and Weidner 2017).

The results in Table A23 are very similar to the main findings. The only difference is that in Column 6, the results are only significant at the 0.1 level rather than the 0.05 level as in the main results. One explanation for this is that the increased number of control variables drastically

reduces the sample size compared to the other estimates in Columns 4 and 5. Moreover, there is a much lower number of observations in the probit analysis compared to OLS, because probit does not include observations from countries that have no variation on the dependent variable.

Table A23: Probit estimations

	Transitions			Breakdowns		
	(1)	(2)	(3)	(4)	(5)	(6)
Ethnic inequality	0.166 (0.785)	0.060 (0.806)	-0.583 (1.331)	3.976** (1.512)	3.314* (1.538)	5.347† (3.071)
GDP pc.		0.169 (0.165)	0.790** (0.277)		-0.660* (0.282)	-1.143† (0.663)
GDP growth			-0.630 (0.875)			-0.978 (1.847)
Oil			0.060 (0.081)			0.038 (0.211)
Regional democracy			1.526* (0.649)			-2.428 (1.718)
State capacity			0.007 (0.012)			0.019 (0.025)
N	3741	3225	1798	1515	1469	672
Country F-E	✓	✓	✓	✓	✓	✓
Year F-E	✓	✓	✓	✓	✓	✓

Probit estimations using “probitfe” for Stata: Analytical and Jackknife bias corrections for fixed effects estimators of panel probit models with individual and time effects. All independent variables lagged one year. † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Exploring the potential role of group size

As discussed in the main text, demography may moderate the theorized relationships. For instance, minority-led ruling coalitions may be fearful of democratization, as they will be outvoted in a democratic setting, whereas majority-led ruling coalitions have less to fear from including a minority group into politics.

These complex questions require a comprehensive analysis, yet in the following I conduct some preliminary examinations. The Ethnic Power Relations (EPR) dataset (Vogt et al. 2015) provides two useful proxy measures: First, the percentage of the population which is politically excluded,

i.e., a measure of the proportion of the population which is excluded from political power because they are either actively discriminated against as a group, or because elite representatives do not hold political power at the national level. Second – and closely related – a measure of whether group members are subjected to “active, intentional, and targeted discrimination by the state, with the intent of excluding them from political power”, expressed as a percentage of the population.

In Table A24, I assess the possibility that the size of the excluded group(s) affects the relationship between ethnic inequality and democratic transitions. For instance, it could be that countries in which a very small group dominates the state are much less likely to democratize, whereas states with smaller excluded groups, are more likely to democratize, since the dominant groups are less fearful of extending democratic rights.

To assess this question, I extend the baseline specification and interact the ethnic inequality variable with the measures of ethno-political exclusion and discrimination. In column 1, the interaction term is positive and significant at the 0.1 level, which indicates that – other things being equal – higher levels of political exclusion increase the likelihood that more ethnically unequal countries democratize. In one interpretation, the combination of high socioeconomic ethnic inequality and extensive political exclusion of ethnic groups (i.e., that a large share of the population is excluded), creates even stronger pressures for democratization. Considering this relationship in more detail in Figure A11, however, indicates that this interactive relationship is rather weak, and nowhere is the relationship significantly different from 0. Moreover, the non-significant interaction term in Column 2 also suggests that there is no clear or consistent relationship.

In other words, there is no strong indication that the size of the excluded or discriminated groups affect the identified null finding for the relationship between ethnic inequality and democratic transitions.

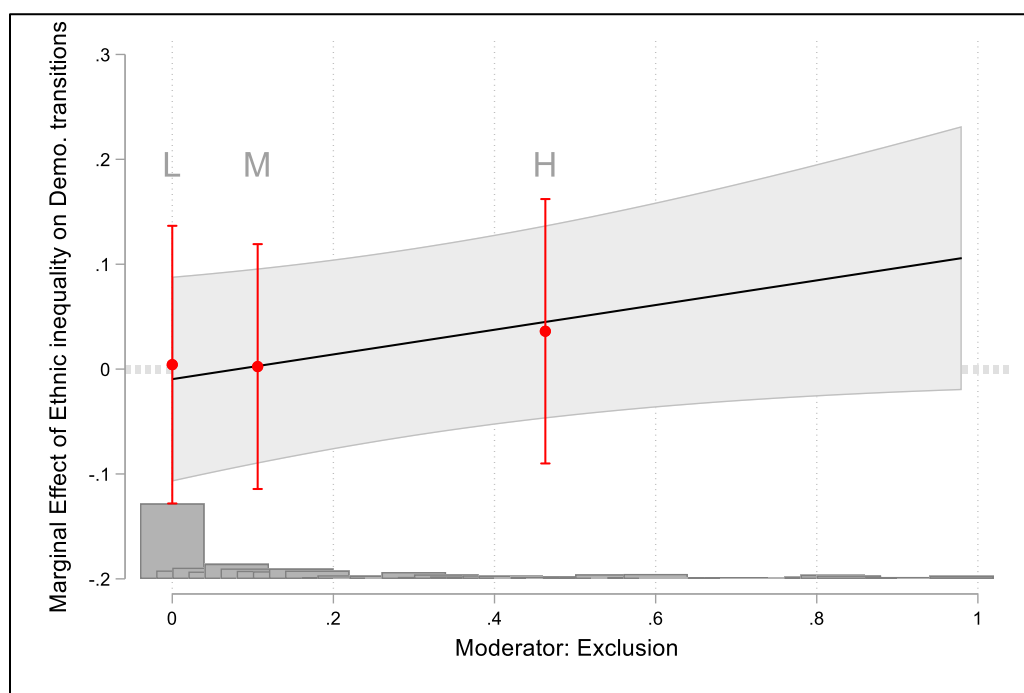
Table A24: Democratic transitions - interaction between ethnic inequality and size of excluded group

	(1) Exclusion (EPR)	(2) Discrimination (EPR)
Ethnic inequality	-0.010 (0.050)	0.018 (0.046)
Ethnic exclusion	-0.086 [†] (0.044)	-0.036 (0.047)
Inequality X Exclusion	0.118 [†] (0.066)	0.020 (0.084)
GDP pc.	0.012 (0.008)	0.014 [†] (0.008)
Observations	5554	5554
Countries	135	135
Country F-E	✓	✓
Year F-E	✓	✓

Standard errors clustered by country in parentheses. All independent variables lagged one year.

[†] $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure A11: Democratic Transitions - Interaction between ethnic inequality and size of excluded group



Note: The plots display the marginal effect of ethnic inequality on democratic transitions conditional on the ethnic exclusion. The black lines indicate continuous marginal effects computed directly from the linear specification with 95% confidence intervals (shaded areas). The vertical point ranges display the marginal effects of democracy along with 95% CIs at the median of each tercile of the exclusion variable. The histograms show the distribution of exclusion

to provide a sense of the empirical relevance of the range of exclusion levels for which ethnic inequality is statistically significant. In these, the total height of the stacked bars refers to the distribution of the moderator in the pooled sample.

What about democratic breakdowns? Could the relationship between ethnic inequality and democratic breakdowns be moderated by the level of exclusion, e.g. if minority representatives are excluded from power? Repeating the exercise from above with the same measures, Table A25, Column 1 shows that there is a statistically significant interaction effect at the 0.1 level. This indicates that the effect of ethnic inequality on democratic breakdowns becomes stronger when larger shares of the population are excluded from power. This is further investigated in Figure A12 below, which shows the same pattern – as levels of ethnopolitical exclusion increase, the effect of socioeconomic ethnic inequality on democratic breakdown grows.

Meanwhile, Column 2 does not indicate an interaction affect. Here, ethnic inequality and ethnopolitical discrimination (at the 0.1 level) appear to have independent effects on democratic breakdowns.

While not robust to the measure employed, there is some indication that the destabilizing effect of ethnic inequality is compounded by high levels of ethnopolitical exclusion, which is in line with hypotheses by Stewart (2021, 2010). That said, these analyses constitute very preliminary assessments, which require further investigation and robustness checks.

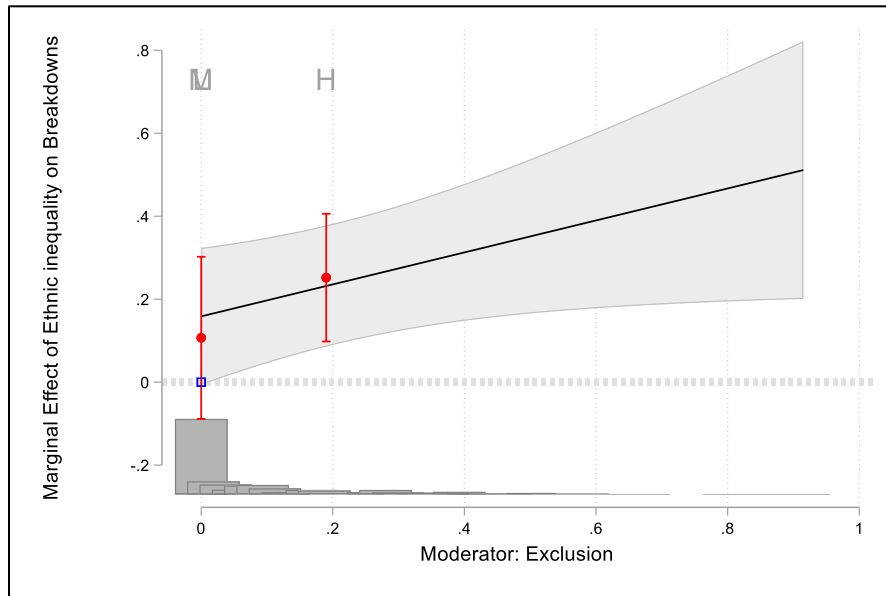
Table A25: Democratic breakdowns - interaction between ethnic inequality and size of excluded group

	(1) Exclusion (EPR)	(2) Discrimination (EPR)
Ethnic socioeconomic inequality	0.159 [†] (0.084)	0.226** (0.077)
Ethnic political exclusion	-0.058 (0.084)	0.429 [†] (0.221)
Inequality X Political exclusion	0.386 [†] (0.196)	-0.484 (0.342)
GDP pc.	-0.009 (0.017)	-0.005 (0.017)
Observations	4317	4317
Countries	126	126

Standard errors clustered by country in parentheses. All independent variables lagged one year.

[†] $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure A12: Democratic breakdowns - Interaction between ethnic inequality and size of excluded group



Note: The plots display the marginal effect of ethnic inequality on democratic breakdowns conditional on ethnic exclusion. The black lines indicate continuous marginal effects computed directly from the linear specification with 95% confidence intervals (shaded areas). The vertical point ranges display the marginal effects of ethnic inequality along with 95% CIs at the median of each tercile of the exclusion variable. The histograms show the distribution of exclusion to provide a sense of the empirical relevance of the range of exclusion levels for which ethnic inequality is statistically significant. In these, the total height of the stacked bars refers to the distribution of the moderator in the pooled sample.

Test for influential observations

The geographically and temporally restricted samples above did not indicate that certain groups of countries or regions were driving the results. In the following, I provide additional analyses testing for influential observations.

Below, I have calculated DFBETA values, which reflect individual observations' influence, i.e. how much the coefficient for a given variable would change, if it was left out of the estimation. An observation is typically assumed to be influential if DFBETA is numerically larger than $2/\sqrt{n}$ – others employ the less restrictive threshold of 1.

I have calculated DBETA values for the baseline transition and breakdowns models, i.e. with two-way fixed effects and control for GDP/per capita. The Table reports the influential observations according to the presented threshold of $2/\sqrt{n}$.

For the transition estimate, which has 9788 observations, 122 can be classified as influential according to the threshold. Meanwhile, none of these are close to reaching the less restrictive threshold of 1.

Table A26: Influential Observations in democratic transition estimates

Country	Year	Dem. transition	DFBETA (Inequality)
Suriname	1991	1	0.0273324
Ghana	1969	1	-0.0909983
Ghana	1979	1	-0.1575307
Ghana	1996	1	-0.139134
South Africa	1994	1	0.1037154
Japan	1925	1	0.0211044
Myanmar	1948	1	-0.0571972
Myanmar	1960	1	-0.0399397
Myanmar	2015	1	0.1202598
Russia	1993	1	0.046553
Albania	1992	1	0.0987583
Albania	1997	1	0.0224795
Colombia	1958	1	0.0815478
Poland	1919	1	0.0697526
Poland	1989	1	0.0523094
Brazil	1985	1	0.1771151
United States	1965	1	0.0434372
Portugal	1976	1	-0.1607917
El Salvador	1930	1	-0.0668765
El Salvador	1984	1	0.1266861
Bolivia	1982	1	0.032716
Bolivia	2020	1	-0.1343006
Honduras	1929	1	0.0339597
Honduras	1982	1	-0.135878
Honduras	2013	1	-0.0774312
Mali	1992	1	-0.0564105
Pakistan	1952	1	-0.1020798
Pakistan	1988	1	0.0577112

Pakistan	2008	1	0.095412
Peru	1980	1	-0.0452605
Peru	2001	1	-0.1294905
Sudan	1965	1	-0.0689512
Sudan	1986	1	-0.0289864
Argentina	1946	1	-0.0312392
Argentina	1973	1	0.034381
Argentina	1983	1	0.0831465
India	1947	1	0.0444843
Korea, South	1960	1	-0.0600512
Korea, South	1988	1	0.1097382
Lebanon	2000	1	-0.115521
Nigeria	1979	1	-0.0483636
Nigeria	1999	1	-0.0222786
Nigeria	2011	1	0.03476
Philippines	1987	1	-0.0597971
Thailand	1975	1	0.1294251
Thailand	1983	1	0.0845087
Thailand	1992	1	0.0435063
Venezuela	1946	1	0.072707
Venezuela	1958	1	0.1310334
Burkina Faso	2015	1	0.029204
Indonesia	1999	1	-0.0256111
Mozambique	1994	1	-0.117308
Nepal	1991	1	0.0667334
Nepal	2008	1	0.0455213
Nicaragua	1990	1	-0.18555
Niger	1999	1	-0.021797
Niger	2011	1	-0.0383498
Zambia	1991	1	-0.0567408
Cote d'Ivoire	2011	1	-0.0443399
Central African Republic	1993	1	-0.0783963
Chile	1970	1	0.0231121
Costa Rica	1949	1	0.028359
Ecuador	1979	1	0.0507803
Germany	1919	1	-0.0336047
Guatemala	1986	1	0.0847342
Italy	1919	1	0.0222571
Lesotho	2002	1	0.0771567
Maldives	2009	1	0.1038462
Maldives	2013	1	0.0996346

Maldives	2018	1	0.1052563
Mongolia	1990	1	0.1363404
Spain	1931	1	-0.0359366
Spain	1977	1	0.1517453
Tunisia	2011	1	-0.1250471
Turkey	1973	1	0.0543252
Turkey	1983	1	0.0304766
Ukraine	1992	0	0.0214978
Ukraine	1994	1	0.0471033
Uruguay	1918	1	-0.0649757
Uruguay	1938	1	-0.0756917
Uruguay	1985	1	0.0461285
Armenia	2018	1	0.0405267
Belarus	1994	1	-0.031523
Dominican Republic	1978	1	0.1044183
Dominican Republic	1996	1	0.1822412
Gambia	2017	1	-0.0275292
Guinea-Bissau	1994	1	-0.0663981
Guinea-Bissau	2000	1	-0.0737659
Guinea-Bissau	2005	1	-0.0847908
Guinea-Bissau	2014	1	-0.0919917
Libya	2012	1	0.0363958
Madagascar	1993	1	-0.0442597
Namibia	1990	1	0.055278
Sri Lanka	1989	1	0.1105962
Sri Lanka	2011	0	-0.0215021
Sri Lanka	2013	0	-0.0208383
Sri Lanka	2015	1	0.1543882
Austria	1919	1	-0.0267826
Bulgaria	1919	1	0.1137091
Bulgaria	1931	1	0.1377438
Bulgaria	1990	1	-0.0631796
Comoros	2006	1	-0.0260054
Cuba	1940	1	0.130349
Cyprus	1977	1	-0.0294591
Czechoslovakia	1919	0	0.0500828
Czechoslovakia	1920	1	-0.3571711
Czechoslovakia	1990	1	0.1185597
Denmark	1915	1	0.0294739
Fiji	1992	1	0.0353892
Fiji	2014	1	-0.0337369

Finland	1919	1	-0.0780996
Lithuania	1920	1	0.024859
Lithuania	1992	1	-0.0986979
Luxembourg	1919	1	-0.0208757
Malaysia	2018	1	-0.0882063
Paraguay	1989	1	0.1108053
Romania	1992	1	0.1073478
Sao Tome and Principe	1991	1	-0.181023
Yugoslavia	1920	1	0.0722189
Serbia-Montenegro	2000	1	-0.0301368
Seychelles	1993	1	-0.0816015
Hungary	1990	1	0.0333038

For the breakdown estimate, which has 5312 observations, 104 can be classified as influential according to the threshold. Meanwhile, none of these are close to the less restrictive threshold of 1.

Table A27: Influential Observations in democratic breakdown estimates

Country	Year	Breakdown	DFBETA (Inequality)
Suriname	1980	1	-0.04598
Ghana	1972	1	-0.05897
Japan	1926	0	-0.03497
Japan	1930	0	-0.03509
Japan	1932	1	0.324692
Myanmar	1958	1	-0.03364
Albania	1996	1	0.16274
Poland	1920	0	-0.03434
Poland	1926	1	0.20816
El Salvador	1931	1	-0.45559
Bangladesh	2014	1	0.028229
Bolivia	1980	1	0.212405
Bolivia	2019	1	-0.21442
Honduras	1930	0	-0.04308
Honduras	1931	0	-0.03808

Honduras	1932	0	-0.03502
Honduras	1933	0	-0.05665
Honduras	1934	1	0.20671
Honduras	1958	0	-0.04104
Mali	2012	1	0.028862
Mali	2020	1	-0.24618
Pakistan	1956	1	-0.20263
Pakistan	1977	1	-0.07411
Pakistan	1999	1	0.037702
Peru	1992	1	0.074713
Sudan	1957	0	-0.05983
Sudan	1958	1	-0.07279
Sudan	1966	0	0.030623
Sudan	1969	1	-0.03513
Sudan	1989	1	0.051744
Argentina	1951	1	0.035697
Argentina	1976	1	0.109321
Kenya	1964	1	0.123435
Korea, South	1961	1	0.283572
Lebanon	1976	1	0.162798
Nigeria	1966	1	-0.13389
Nigeria	1983	1	-0.06675
Nigeria	2003	1	0.029476
Thailand	1976	1	0.226946
Thailand	1984	0	-0.02765
Thailand	1985	0	-0.02909
Thailand	1986	0	-0.02842
Thailand	1987	0	-0.03109
Thailand	1988	0	-0.02833
Thailand	1991	1	-0.03732
Thailand	2006	1	-0.12146
Thailand	2014	1	-0.10872
Venezuela	1947	0	-0.03891
Venezuela	1948	1	0.506399
Venezuela	2008	1	0.144776
Benin	2019	1	-0.09816
Mozambique	2009	1	0.028226
Nepal	2002	1	0.073127
Nicaragua	1930	0	-0.03091
Nicaragua	1933	0	-0.04275
Nicaragua	1934	0	-0.06176
Nicaragua	1935	0	-0.03369

Nicaragua	1936	1	0.226408
Nicaragua	2016	1	-0.09968
Zambia	2016	1	0.084647
Burundi	2010	1	-0.0299
Chile	1971	0	-0.03204
Chile	1973	1	0.252937
Germany	1933	1	0.198245
Italy	1922	1	0.220026
Latvia	1934	1	-0.05994
Panama	1933	0	-0.03097
Panama	1934	0	-0.0458
Panama	1936	1	0.184236
Panama	1968	1	0.25572
Turkey	2018	1	0.101761
United Kingdom	1934	0	0.030936
United Kingdom	1936	0	0.027706
Uruguay	1933	1	-0.12621
Uruguay	1973	1	0.199406
Dominican Republic	1926	0	0.028326
Dominican Republic	1927	1	-0.2408
Dominican Republic	1994	1	0.135867
Gambia	1994	1	0.083555
Georgia	2008	1	0.03165
Sri Lanka	2010	1	0.11607
Bulgaria	1920	1	0.071882
Bulgaria	1934	1	0.105186
Comoros	1999	1	0.042197
Comoros	2019	1	-0.02849
Cuba	1952	1	0.088468
Czechoslovakia	1946	0	-0.04776
Czechoslovakia	1948	1	0.489039
Denmark	1920	0	-0.03982
Denmark	1926	0	-0.02806
Denmark	1930	0	-0.02827
Denmark	1933	0	-0.04537
Denmark	1934	0	-0.04318
Estonia	1934	1	-0.057
Fiji	2003	1	0.041038
Greece	1935	1	0.0603
Greece	1965	1	-0.20975

Lithuania	1926	1	0.249484
Luxembourg	1934	0	0.038322
Luxembourg	1936	0	0.036213
Romania	1920	1	-0.05659
Romania	1930	1	-0.08524
Yugoslavia	1929	1	0.173028
Serbia	2020	1	-0.06863

References

- Alesina, Alberto, Arnaud Devleeschauwer, William Easterly, Sergio Kurlat, and Romain Wacziarg. 2003. "Fractionalization." *Journal of economic growth (Boston, Mass.)* 8 (2): 155-94.
- Andersen, David Delfs Erbo 2017. "Stateness and Democratic Stability. Phd Dissertation.", Politica.
- Birnir, Jóhanna K., David D. Laitin, Jonathan Wilkenfeld, David M. Waguespack, Agatha S. Hultquist, and Ted R. Gurr. 2017. "Introducing the Amar (All Minorities at Risk) Data." *Journal of Conflict Resolution* 62 (1): 203-26.
- Brown, Graham K. 2011. "Nepal: First Steps Towards Reducing Hi's?" In *Horizontal Inequalities and Post-Conflict Development*, edited by Frances Stewart, R. Venugopal and Arnim Langer, 275-96. London: Palgrave Macmillan.
- BTI. 2022. "Bti 2022 Codebook for Country Assessments."
- Canelas, Carla, and Rachel M. Gisselquist. 2018. "Human Capital, Labour Market Outcomes, and Horizontal Inequality in Guatemala." *Oxford Development Studies* 46 (3): 378-97.
- Cruz-Gonzalez, M., I. Fernández-Val, and M. Weidner. 2017. "Bias Corrections for Probit and Logit Models with Two-Way Fixed Effects." *Stata Journal* 17 (3): 517-45.
- Fearon, James D. 2003. "Ethnic and Cultural Diversity by Country." *Journal of economic growth (Boston, Mass.)* 8 (2): 195-222.
- Figueroa, Adolfo, and Manuel Barrón. 2005. "Inequality, Ethnicity and Social Disorder in Peru." *Centre for Research on Inequality, Human Security and Ethnicity: Working Paper No. 8* 8.
- Fukuda-Parr, Sakiko. 2011. "Correcting Horizontal Inequality as a Development Priority: Poverty Reduction Strategy Papers in Haiti, Liberia and Nepal." In *Horizontal Inequalities and Post-Conflict Development*, edited by Frances Stewart, R. Venugopal and Arnim Langer, 84-107. London: Palgrave Macmillan.
- Haggard, Stephan, Robert R. Kaufman, and Terence K. Teo. 2012. *Distributive Conflict and Regime Change: A Qualitative Dataset*.
- Hangen, Susan I. 2010. *The Rise of Ethnic Politics in Nepal : Democracy in the Margins*. London ;; Routledge.
- Hicks, R., and D. Tingley. 2011. "Causal Mediation Analysis." *Stata Journal* 11 (4): 605-19.

- Houle, Christian. 2015. "Ethnic Inequality and the Dismantling of Democracy: A Global Analysis." *World Politics* 67 (3): 469-505.
- Imai, Kosuke, Luke Keele, Dustin Tingley, and Teppei Yamamoto. 2011. "Unpacking the Black Box of Causality: Learning About Causal Mechanisms from Experimental and Observational Studies." *The American political science review* 105 (4): 765-89.
- Kantha, Pramod. 2010. "Nepal's Protracted Democratization in Terms of Modes of Transition." *HIMALAYA, the Journal of the Association for Nepal and Himalayan Studies* 28 (1&2).
- Lawoti, Mahendra. 2008. "Exclusionary Democratization in Nepal, 1990–2002." *Democratization* 15 (2): 363-85.
- Lawoti, Mahendra. 2010a. "Informal Institutions and Exclusion in Democratic Nepal." *HIMALAYA, the Journal of the Association for Nepal and Himalayan Studies* 28 (1&2).
- Lawoti, Mahendra. 2010b. "Introduction to Special Section: Ethnicity, Exclusion, and Democracy in Nepal." *HIMALAYA, the Journal of the Association for Nepal and Himalayan Studies* 28 (1&2).
- Lawoti, Mahendra, and Susan I. Hangen. 2013. "Introduction: Nationalism and Ethnic Conflict in Nepal." In *Nationalism and Ethnic Conflict in Nepal: Identities and Mobilization after 1990*, edited by Mahendra Lawoti and Susan I. Hangen, xvii-xvii. London: Routledge.
- Lawson, Stephanie. 1991. *The Failure of Democratic Politics in Fiji*. Oxford: Clarendon Press.
- Leivas, Pedro Henrique Soares, and Anderson Moreira Aristides dos Santos. 2018. "Horizontal Inequality and Ethnic Diversity in Brazil: Patterns, Trends, and Their Impacts on Institutions." *Oxford Development Studies* 46 (3): 348-62.
- McCarthy, Stephen. 2011. "Soldiers, Chiefs and Church: Unstable Democracy in Fiji." *International political science review* 32 (5): 563-78.
- Molina, George Gray. 2007. "Ethnic Politics in Bolivia: 'Harmony of Inequalities' 1900-2000." *Centre for Research on Inequality, Human Security and Ethnicity, CRISE* working paper, no. 15.
- Montalvo, José G., and Marta Reynal-Querol. 2005. "Ethnic Polarization, Potential Conflict, and Civil Wars." *American Economic Review* 95 (3): 796-816.
- Shakya, Mallika. 2010. "Capitalism and Ethnicity Facing a Rising Wave of Communism in Nepal." *HIMALAYA, the Journal of the Association for Nepal and Himalayan Studies* 28 (1): 49-58.
- Stewart, Frances. 2010. "Horizontal Inequalities in Kenya and the Political Disturbances of 2008: Some Implications for Aid Policy." *Conflict, Security & Development: Conflict prevention and development co-operation in Africa* 10 (1): 133-59.

Stewart, Frances. 2021. "Horizontal Inequalities and Democracy." In *Research Handbook on Democracy and Development*, edited by Gordon Crawford and Abdul-Gafaru Abdulai, 420-40. Cheltenham, UK & Northampton, MA: Edward Elgar.

Tiwari, Biswa Nath. 2010. "Horizontal Inequalities and Violent Conflict in Nepal." *HIMALAYA, the Journal of the Association for Nepal and Himalayan Studies* 28 (1): 49-58.

Treisman, Daniel. 2020. "Economic Development and Democracy: Predispositions and Triggers." *Annual Review of Political Science* 23 (1): 241-57.